



COMMUNITY ADVISORY GROUP MEETING #7

June 12, 2012



Illinois Department
of Transportation

Meeting Objectives

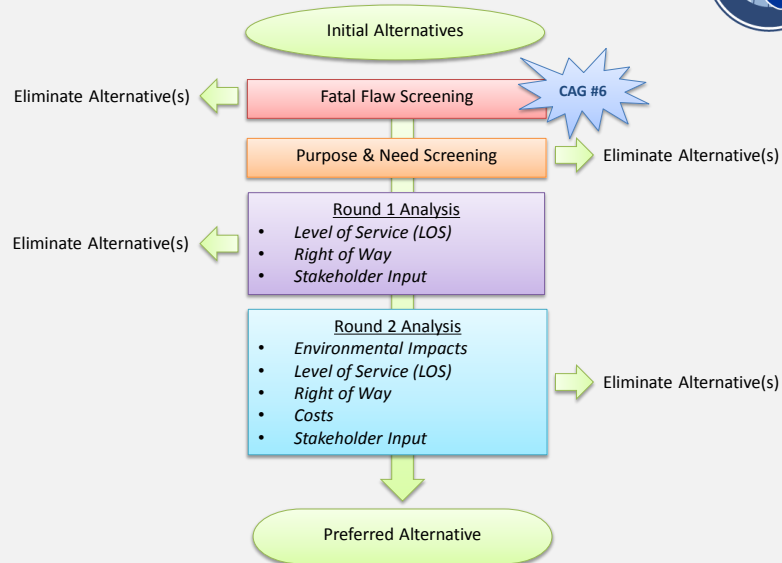


- Review CAG #6
- Alternative Screening Process
- Screening Results
- Next Steps



Illinois Department
of Transportation

CAG #6 Review



Community Advisory Group Meeting #6



- Meeting held August 31, 2011
- Main Topics Covered
 - Purpose and Need Statement
 - Evaluation and Screening of Alternatives
 - Fatal Flaw Screening

Review of Initial Range of Alternatives

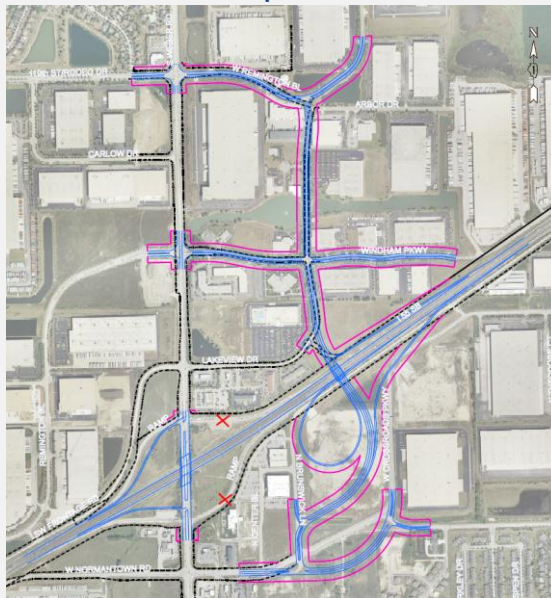


- Combination of:
 - Interchange Improvements
 - Weber Road Improvements
 - Non-Motorized Accommodations
- CAG and TAG input produced 21 total alternatives
- CAG Meeting #6 produced 1 additional alternative



Alternative V

Diamond, Free Flow Ramps to I-55 North



Fatal Flaw Screening

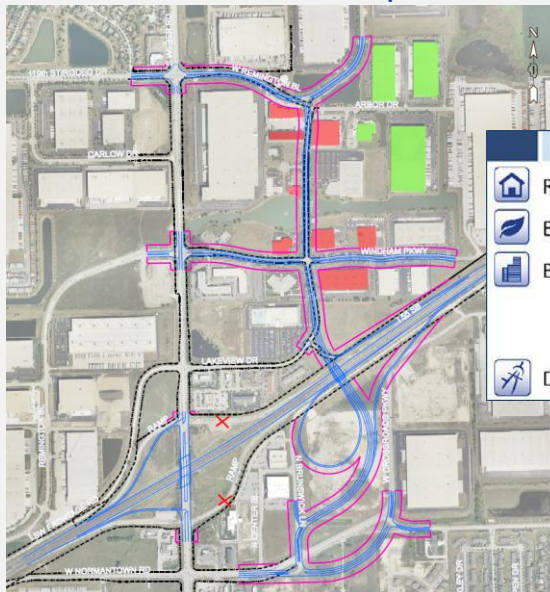


- 22 Alternatives evaluated against Fatal Flaw Screening Criteria
 - ☑ Substantial Residential Impacts
 - ☑ Substantial Environmental Impacts
 - ☑ Substantial Business Impacts
 - ☑ Minimum Design criteria not met



Alternative V

Diamond, Free Flow Ramps to I-55 North



SCORECARD		
☑ Residential Impacts		0
☑ Environmental Impacts		0
☑ Business Impacts		-
-Direct		8
-Access		5
☑ Design Criteria Met		Yes

■ Direct Business Impacts
■ Access Impacts



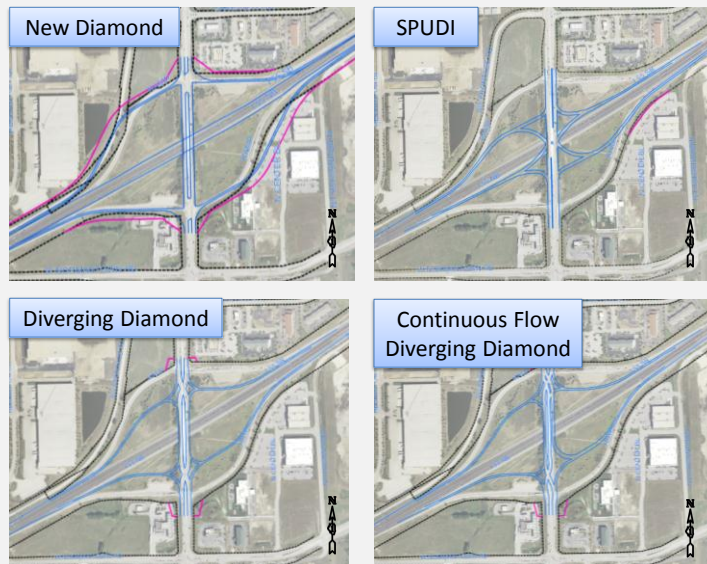
Fatal Flaw Screening Results



- Eliminate Alternative V based on:
 - Substantial business impacts
- CAG #6 eliminated 14 alternatives from further consideration based on:
 - Substantial business impacts
 - Substantial access impacts
 - Inability to meet design criteria
- Carry forward 7 alternatives for additional evaluation



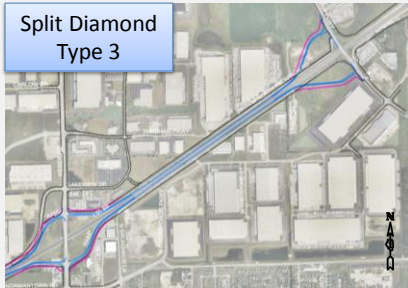
Alternatives Carried Forward



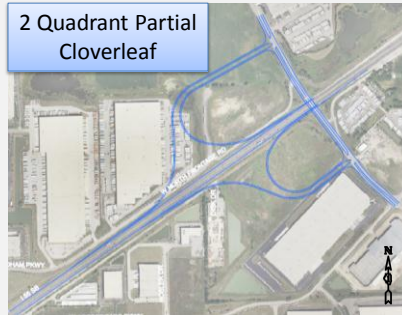
Alternatives Carried Forward



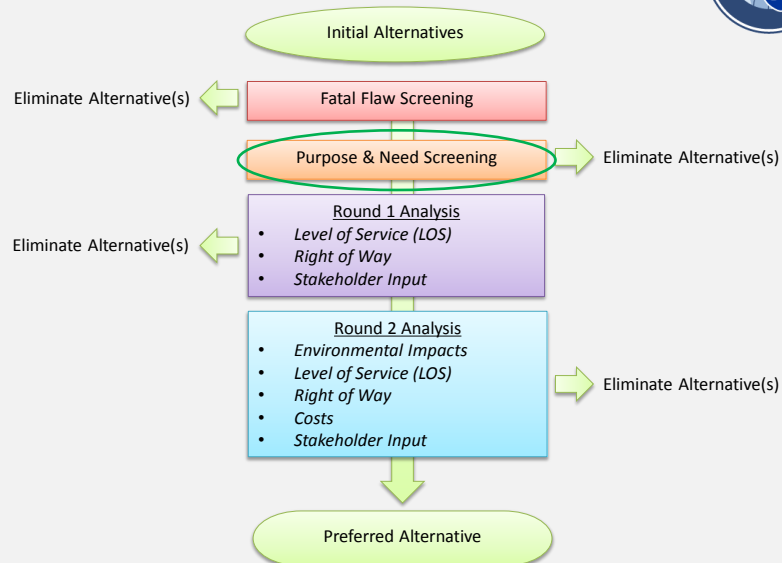
Split Diamond
Type 3



2 Quadrant Partial
Cloverleaf



Evaluation and Screening Process



Purpose and Need Evaluation Process



- Purpose and Need Screening Criteria:
 - Increase Safety
 - Improve Operations
 - Increase Capacity
- Each alternative is compared to the 2040 No Build condition
- All alternatives are compared to each other



Purpose and Need Evaluation: Safety



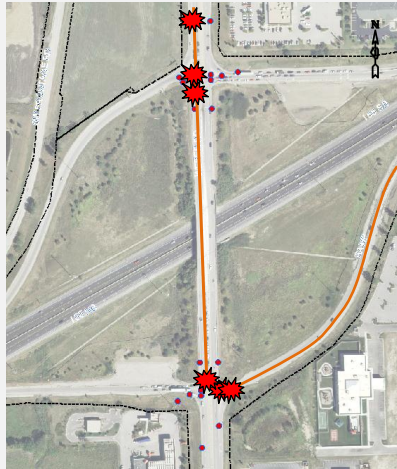
- Safety improvements proposed by each alternative will be evaluated by:
 - Number of vehicular conflict points
 - Number of weaving movements in each interchange



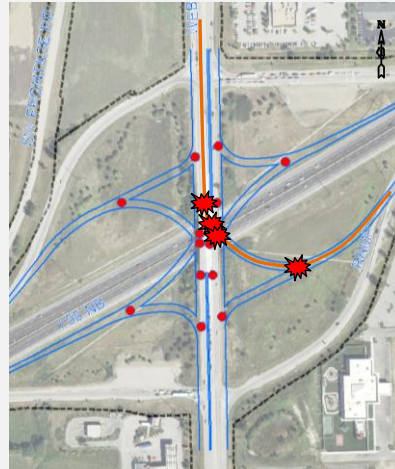
Vehicular Conflict Points



Diamond

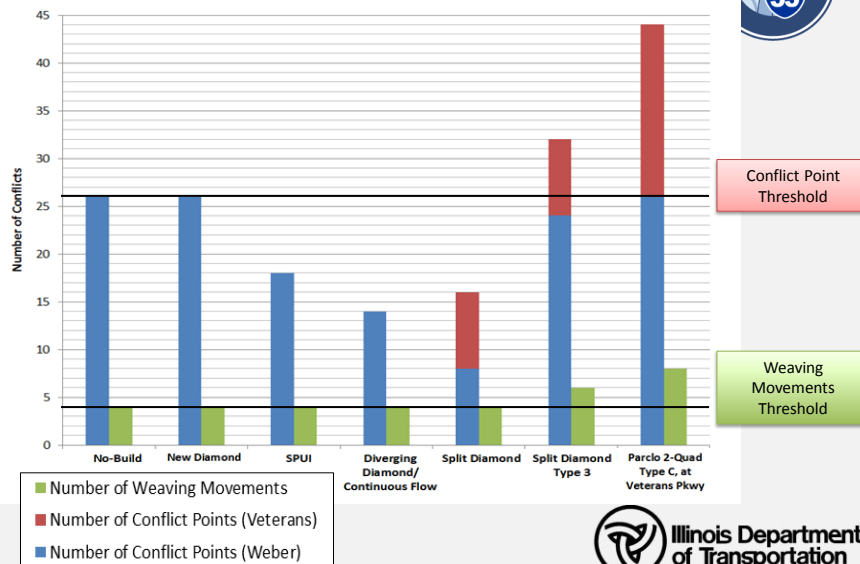


SPUI



● Vehicular Path Conflict Point

Purpose and Need Evaluation: Safety



Purpose and Need Evaluation: Operations



- Operational improvements proposed by each alternative will be evaluated by:
 - Intersection density
 - Storage length for turn lanes
 - Interchange spacing



Purpose and Need Evaluation: Operations



Alternatives		Operations		
		Intersections Meet Minimum Spacing Requirements (Y/N)	Storage Meets Minimum Requirements (Y/N)	Interchanges Meet Minimum Spacing Requirements (Y/N)
	No-Build	N	N	Y
G	New Diamond	N	N	Y
L	SPII	N	Y	Y
M/P	Diverging Diamond/Continuous Flow	N	N	Y
Q	Split Diamond	N	Y	N
T	Split Diamond Type 3	N	N	N
U	Partial Cloverleaf Type C	N	N	N



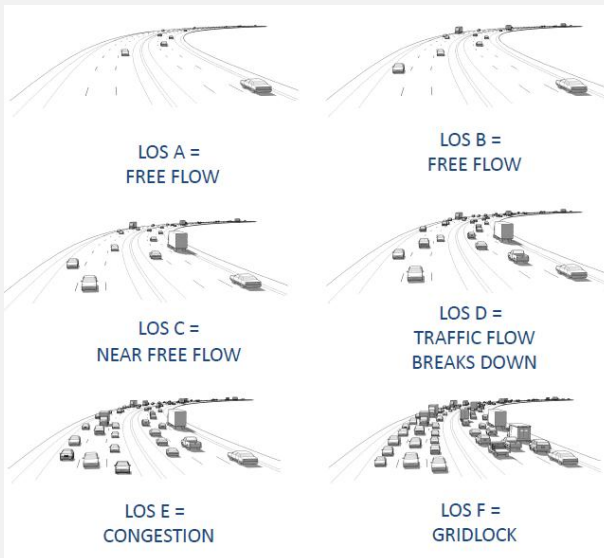
Purpose and Need Evaluation: Capacity



- Capacity improvements proposed by each alternative will be evaluated by:
 - Intersection Level of Service
 - Arterial Level of Service



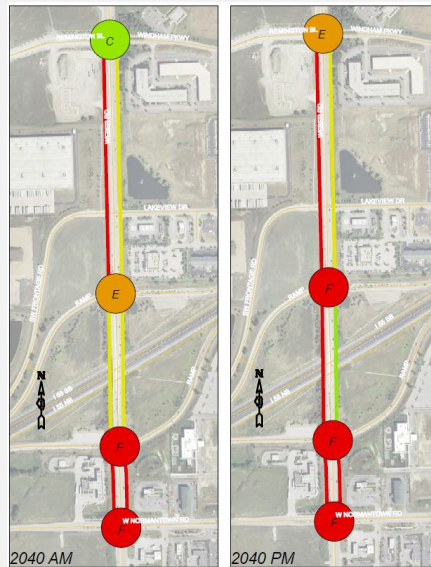
LOS Capacity Analysis



Intersection LOS	
LOS	Delay Time (Sec/Veh)
A	≤ 10
B	> 10-20
C	> 20-35
D	> 35-55
E	> 55-80
F	> 80

Arterial LOS	
LOS	Delay Speed (Mi/h)
A	≥ 40.5
B	> 31.5-40.5
C	> 22.5-31.5
D	> 18-22.5
E	> 14.9-18
F	< 14.9

Capacity Analysis: No-Build 2040



Capacity Analysis Results: AM



Weber Road Signalized Intersections	Intersection Level of Service (LOS)						
	2040 No-Build	New Diamond	SPUDI	Diverging Diamond	Split Diamond	Split Diamond Type 3	Partial Cloverleaf Type C
Remington Blvd/Wyndham Pkwy	C	C	C	C	C	C	C
I-55 Southbound Ramps	E	C	D	C	C	C	C
I-55 Northbound Ramps	F	E	D	B	F	D	C
Normantown Road	F	F	F	C	F	E	E

Capacity Analysis Results: PM



Weber Road Signalized Intersections	Intersection Level of Service (LOS)						
	2040 No-Build	New Diamond	SPUDI	Diverging Diamond	Split Diamond	Split Diamond Type 3	Partial Cloverleaf Type C
Remington Blvd/Wyndham Pkwy	E	C	D	C	C	D	C
I-55 Southbound Ramps	F	D	D	C	C	D	C
I-55 Northbound Ramps	F	C	D	C	B	C	C
Normantown Road	F	E	E	C	D	E	D

Purpose and Need Results



- Eliminate 3 Veterans Parkway Alternatives from further consideration based on:
 - Safety
 - Increase in vehicular conflict points
 - Increase in number of weaving movements
 - Impedes traffic merging onto I-55
 - Operations
 - Does not solve intersection spacing on Weber; creates intersection spacing problem at Veterans Pkwy
 - Similar or worse scenario than 2040 No-Build option
 - Capacity
 - Inability to improve capacity more than a Weber Rd only alternative

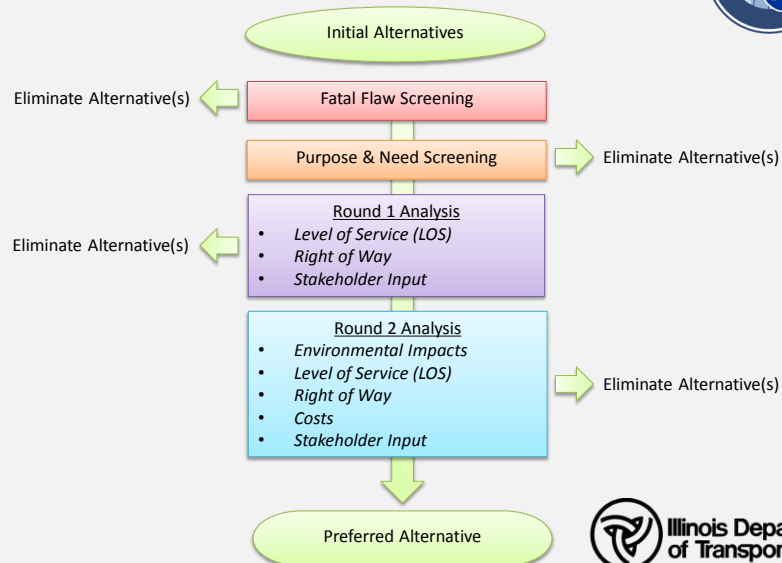
Purpose and Need Results (Cont'd)



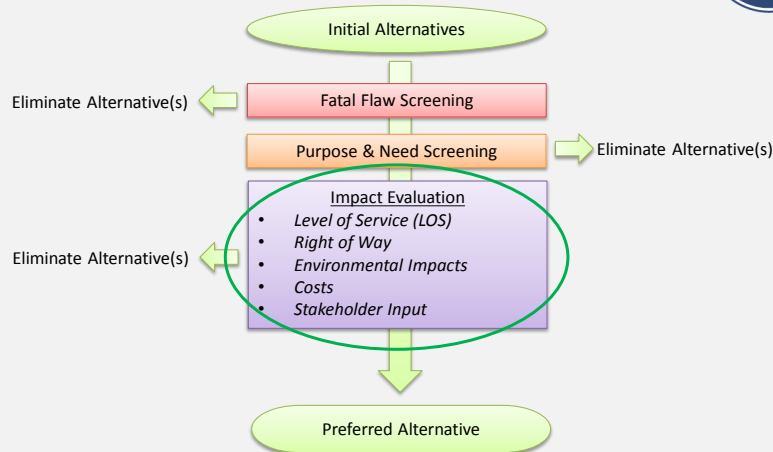
- Carry forward 4 alternatives for additional evaluation
 - New Diamond
 - SPUDI
 - Diverging Diamond
 - Continuous Flow Diverging Diamond



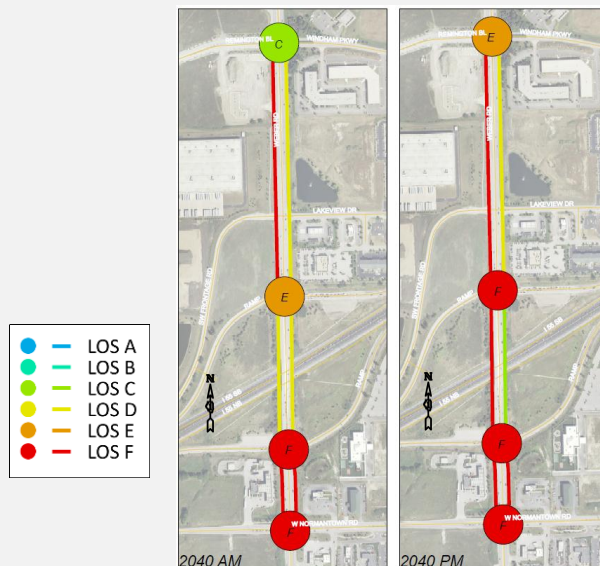
Evaluation and Screening Process



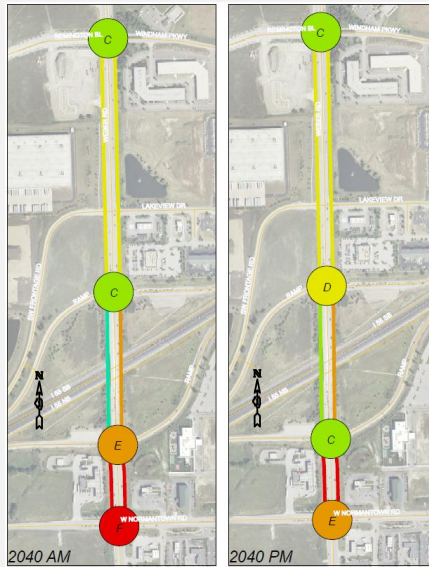
Updated Evaluation and Screening Process



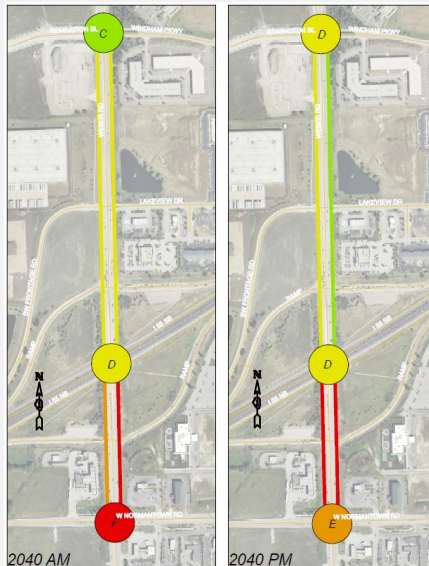
Impact Evaluation Results: LOS 2040 No-Build



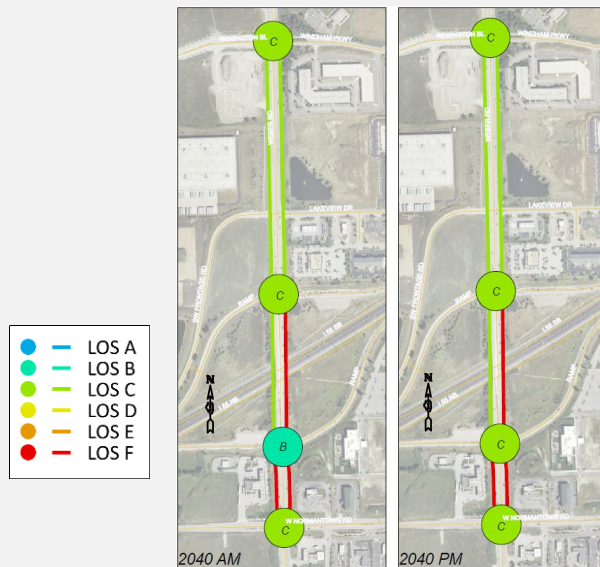
Impact Evaluation Results: LOS New Diamond



Impact Evaluation Results: LOS SPUDI



Impact Evaluation Results: LOS Diverging Diamond/Continuous Flow DDI

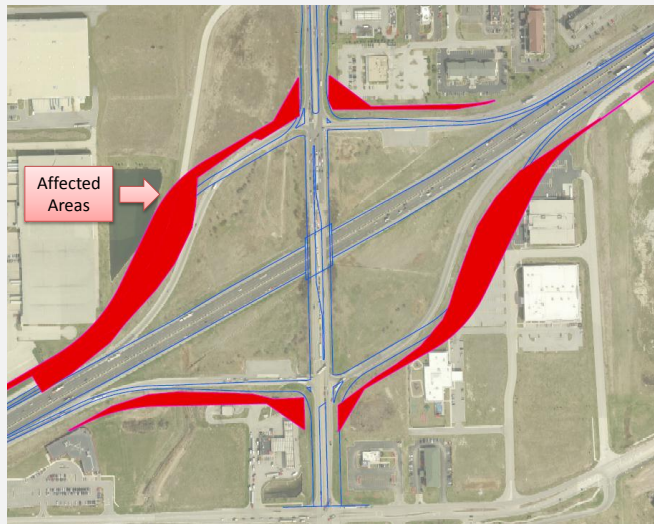


Impact Evaluation Results: Right of Way



Alternative	Interchange Right of Way Acres to be Taken
No-Build	0
New Diamond	2.58
SPUDI	0
Diverging Diamond	0
Continuous Flow Diverging Diamond	0

Impact Evaluation Results: Right of Way

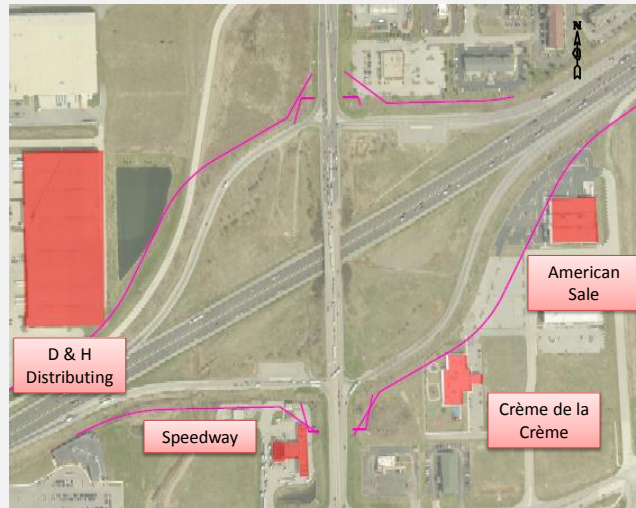


Impact Evaluation Results: Environmental

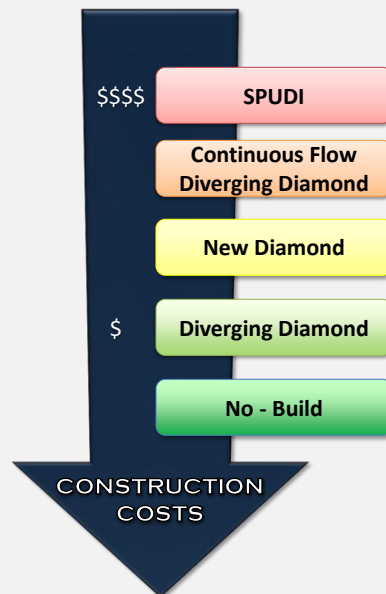


Alternative	Potential Business Relocations	Potential Parking Impacts
No-Build	0	0
New Diamond	4	4
SPUDI	0	0
Diverging Diamond	1	1
Continuous Flow Diverging Diamond	1	1

Impact Evaluation Results: Building Impacts



Impact Evaluation Results: Costs



Impact Evaluation Recommendation



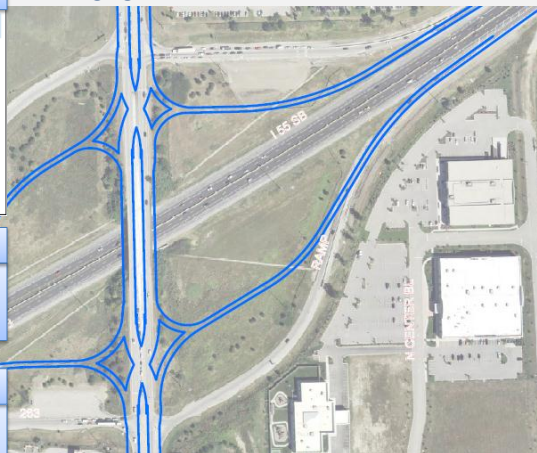
SCORECARD					
	No-Build	New Diamond	SPUDI	Diverging Diamond	Continuous Flow Diverging Diamond
Level of Service	F	D	E	C	C
Right of Way	0	2.58	0	0	0
Environmental	0	4	0	1	1
Costs	0	\$\$	\$\$\$\$	\$	\$\$\$
Stakeholder Input		On Going	On Going	On Going	On Going

Evaluation and Screening Process Summary

Alternative to be Carried Forward:
Diverging Diamond



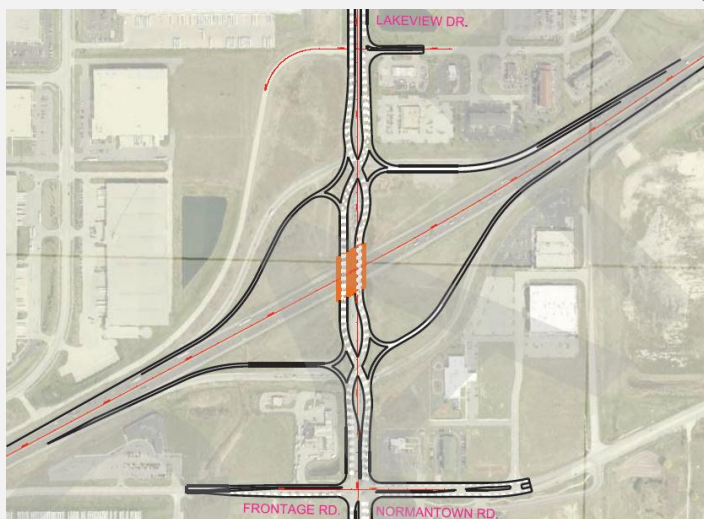
Fatal Flaw Evaluation	
SCORECARD	
Residential Impacts	0
Environmental Impacts	0
Business Impacts	-
-Direct	0
-Access	0
Design Criteria Met	Yes
Purpose and Need Evaluation	
✓ Improve Safety	
✓ Met Operations	
✓ Increase Capacity	
Impact Evaluation	
✓ Improved Level of Service	
✓ Minimal Right of Way Required	
✓ Limited Environmental Impacts	
✓ Low Cost Option	



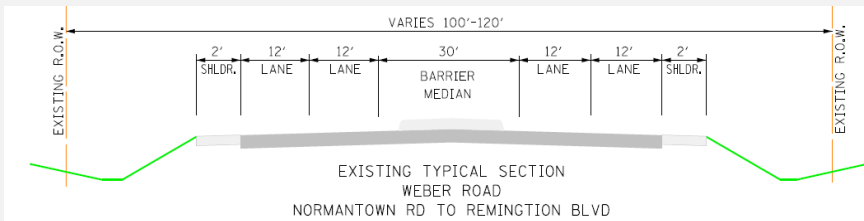
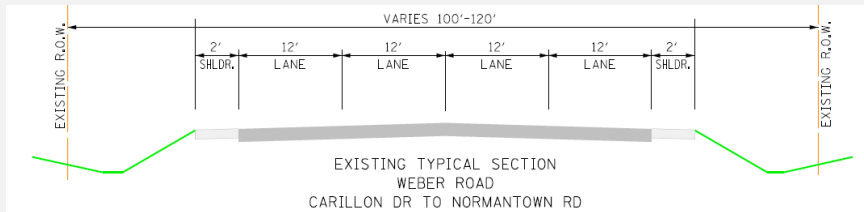


Questions?

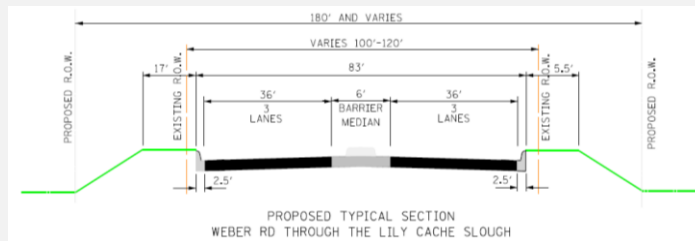
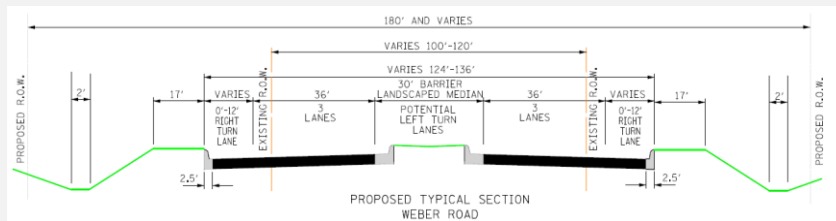
Diverging Diamond Interchange (DDI)



Existing Typical Sections



Proposed Weber Rd Typical Sections



Full Corridor Features: 135th Street



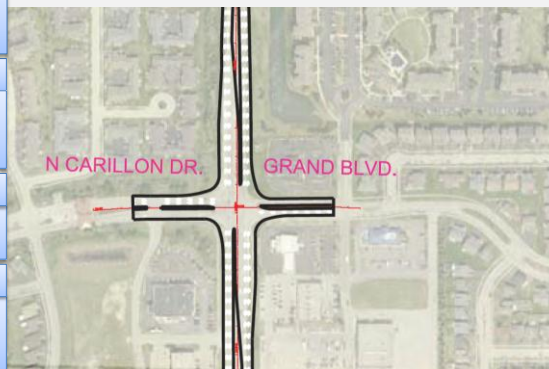
Northbound	
✓	Left Turn Lane
✓	Three Through Lanes
✓	Right Turn Lane
Southbound	
✓	Dual Left Turn Lanes
✓	Three Through Lanes
✓	Right Turn Lane
Westbound	
✓	Dual Left Turn Lanes
✓	Through Lane
✓	Right Turn Lane
Eastbound	
✓	Left Turn Lane
✓	Through Lane
✓	Right Turn Lane



Full Corridor Features: Carillon Dr



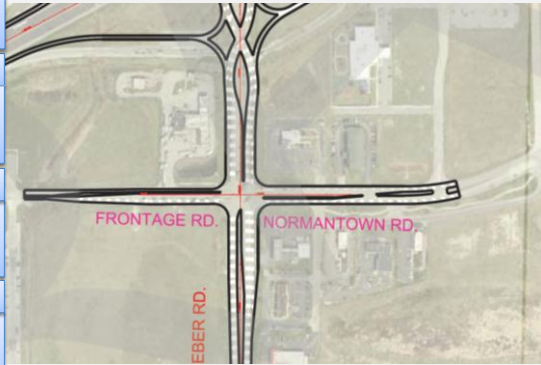
Northbound	
✓	Dual Left Turn Lanes
✓	Three Through Lanes
✓	Right Turn Lane
Southbound	
✓	Dual Left Turn Lanes
✓	Three Through Lanes
✓	Right Turn Lane
Westbound	
✓	Left Turn Lane
✓	Shared Through & Right Turn Lane
Eastbound	
✓	Left Turn Lane
✓	Through Lane
✓	Right Turn Lane



Full Corridor Features: Normantown Rd



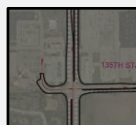
Northbound	
✓	Left Turn Lane
✓	Four Through Lanes
✓	Right Turn Lane
Southbound	
✓	Dual Left Turn Lanes
✓	Three Through Lanes
✓	Right Turn Lane
Westbound	
✓	Dual Left Turn Lanes
✓	Through Lane
✓	Shared Through & Right Turn Lane
Eastbound	
✓	Dual Left Turn Lanes
✓	Through Lane
✓	Shared Through & Right Turn Lane



Full Corridor Features: Lakeview Dr



Northbound	
✓	Three Through Lanes
✓	Right Turn Lane
Southbound	
✓	Three Through Lanes
Westbound	
✓	Right Turn Lane



Full Corridor Features: Remington Blvd



Northbound	
✓	Dual Left Turn Lanes
✓	Three Through Lanes
✓	Right Turn Lane
Southbound	
✓	Dual Left Turn Lanes
✓	Three Through Lanes
✓	Right Turn Lane
Westbound	
✓	Left Turn Lane
✓	Through Lane
✓	Right Turn Lane
Eastbound	
✓	Left Turn Lane
✓	Through Lane
✓	Right Turn Lane



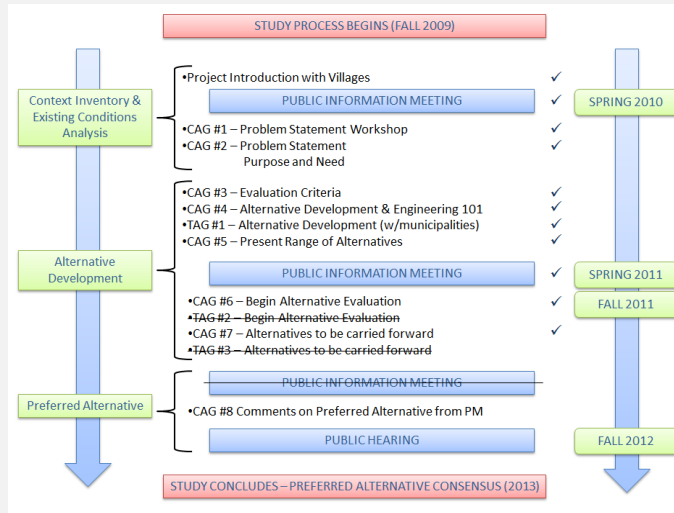
Full Corridor Features: 119th/Rodeo Dr



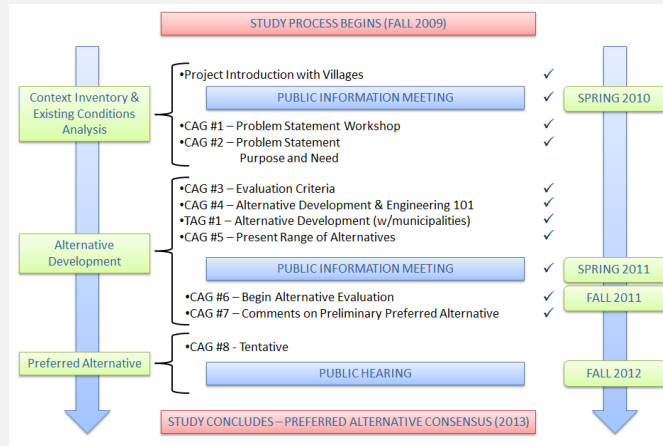
Northbound	
✓	Dual Left Turn Lanes
✓	Three Through Lanes
✓	Right Turn Lane
Southbound	
✓	Left Turn Lane
✓	Three Through Lanes
✓	Right Turn Lane
Westbound	
✓	Left Turn Lane
✓	Through Lane
✓	Right Turn Lane
Eastbound	
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✓	Through Lane
✓	Right Turn Lane



Study Process Update



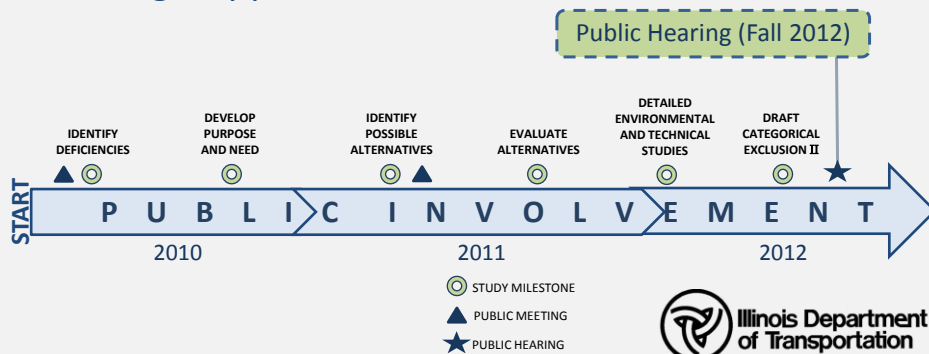
New Study Process



Next Steps



- Public Hearing
- Present Preferred Alternative
- Design Approval



Thank You!



Citizen Advisory Group Meeting #8

TBD

